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CCITT

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

M.1520

(10/92)

MAINTENANCE: DESIGNATIONS AND INFORMATION EXCHANGE

STANDARDIZED INFORMATION EXCHANGE BETWEEN ADMINISTRATIONS



Recommendation M.1520

FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation M.1520 was prepared by Study Group IV and was approved under the Resolution No. 2 procedure on the 5th of October 1992.

CCITT NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

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Recommendation M.1520**STANDARDIZED INFORMATION EXCHANGE BETWEEN ADMINISTRATIONS***(1992)**Abstract*

This Recommendation provides principles for the standardized exchange of information, defining a technique to be used for this purpose.

This Recommendation should be applied to all information exchanged in the pre-TMN environment in order to adapt it to a structure applicable to the TMN.

Keywords

- information exchange;
- information exchange template;
- standardized information exchange.

1 Purpose

The purpose of this Recommendation is to provide principles for a standardized exchange between Administrations of all network and service related information specified in CCITT Recommendations.

This Recommendation should be applied to all information exchanged in the pre-TMN environment to ensure a systematic treatment of this information in order to prepare it for a smooth transition to a standardized information exchange through TMN. Therefore all Administrations are strongly advised to follow this Recommendation.

2 General

The efficient and cost-effective implementation and operation of international networks and services require close cooperation between Administrations to share and exchange service and network-related data during network and service design/expansion, provisioning and operations.

This will become even more important with the introduction of new sophisticated international services and increased customer demands for efficient service support.

The ability of Administrations to meet these customer needs relies heavily on their ability to exchange, in a timely manner, OAM&P information which directly affects the services offered by Administrations.

These information demands will be met satisfactorily in the future by the utilization of the TMN. However, not all information that is interchanged between Administrations is organized in a way suitable to the TMN. Therefore measures have to be taken in accordance with this Recommendation to restructure all information exchanged using methods and principles established in the pre-TMN environment, in order to adapt it to a structure applicable to the TMN.

3 Field of application

At present there are CCITT Recommendations specifying the content of information that should be exchanged between Administrations to facilitate the management of telecommunication services and networks. This Recommendation specifies the standardized method that should be applied to facilitate an efficient interchange of this information between Administrations within the field of applications for all Recommendations identified in Table 1/M.1520. The table is partitioned into two different sets of macroactions (general type action) called "activity" and "aspect".

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Activity examples are

- network design;
- network provisioning;
- supervision and control;
- re-routing;
- performance assessment.

Aspect examples are

- configuration;
- status;
- measurements;
- schedules;
- directory.

Each possible combination between macroactions <Activity, Aspect> identifies a unique set of services and subservices. The pair <Service, Subservice> is a second level of discrimination and focuses on the data types that the Administration has to exchange.

TABLE 1/M.1520

Activity	Aspect	Configuration	Status	Measurements	Schedules	Directory
Network design				E.401 E.500 E.501 E.502 E.490 E.491		M.734 M.1510 M.1560
Network provisioning		M.450 M.460 M.470 M.475 M.570 M.1045 M.1400 R.70		M.450 M.460 M.556 M.570 M.580 M.2110 M.4030		M.80 M.90 M.1012 M.1013 M.1510 M.1560
Supervision and control		M.565	E.411 M.490 M.1530 M.2130	E.411 M.1530	M.605 M.620 M.630 M.733	M.734 M.1014 M.1510 M.1560
Re-routing		M.495 M.1060			M.490 M.1060	M.725 M.1510 M.1560
Performance assessment		E.401		E.420-E.429 E.434 E.502 E.490 E.491 G.821 G.82x M.1016 M.1230 M.1235 M.2100	E.401 E.421 E.422 E.423 E.425 E.426 E.428 E.434	E.401 E.421 E.423 E.424 E.425 E.426 M.1510 M.1560